

MINO 60 mid lumen

ceiling offset

046-47L4618H



Project / Type

Notes

Count / Date



General

Ceiling , Surface

black , RAL 9005 ¹

IP20

Ball impact resistant DIN 18032-3

1370 lm

1170 lm/m

LED

4000 K

CRI ≥ 80

L90 / 50000 h

initial MacAdam ≤ 3 SDCM

MR 0.72

MDER 0.65

Optical

High Performance Opal

opal (lambertsch)

PstLM ≤ 1.0 ²

SVM ≤ 0.4 ²

Electrical

non DIM

220-240 V

system 13.3 W

system 103 lm/W³

PC1

11 W/m

Physical

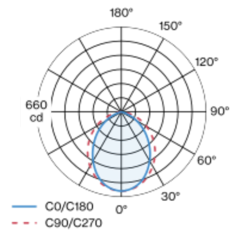
length 1175 mm

width 60 mm

height 90 mm

Luminaire housing made of extruded aluminium profile; light-tight end caps in aluminium; angular design; surface black powder coated; luminaire, ball proof version to DIN 18032-3 and DIN 57710 part 13 / VDE 0710 part 13; not suitable for indoor tennis centers (or halls with comparable ball sizes); LED light inset consisting of highly reflective lacquered aluminium for improved thermal management; light colour 4000 K; binning initial MacAdam ≤ 3 SDCM; CRI ≥ 80; min. 90% of luminous flux after 50000 operating hours; energy efficient LEDs with high CRI; HPO (High Performance Opal) cover for uniform illumination; degree of protection IP20; PC1; 220-240 V; incl. converter, non dimmable; light source replaceable by an authorized professional; control gear replaceable by an authorized professional;

Light distribution



Product drawing



¹ RAL code ² Value of containing product at full load (undimmed)
³ incl. consideration of optical losses, internal control unit losses
& operating device efficiency

Installation instructions



Lighting calculator



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Maintenance Factors

| Operating Time [h] | 10 000 | 20 000 | 30 000 | 40 000 | 50 000 |
|--------------------|--------|--------|--------|--------|--------|
| LLMF | 0.98 | 0.96 | 0.94 | 0.92 | 0.9 |
| LSF | 1 | 1 | 1 | 1 | 1 |

MF

MF

LMF^a

LMF × RSMF × LLMF × LSF

Maintenance Factor

Luminaire Maintenance Factor

RSMF^a

LLMF

LSF

Room Surface Maintenance Factor

Lamp Lumens Maintenance Factor

Lamp Survival Factor

^a According to "CIE 97, Maintenance of indoor electric lighting systems", 2005, ISBN 3-900-734-34-8. The values must be determined by the planner.

Circuit Breaker Types

| Automatic Circuit Breaker Type | Number of Fixtures |
|--------------------------------|--------------------|
| B10 | 29 |
| B13 | 38 |
| B16 | 48 |
| B20 | 60 |
| C10 | 49 |
| C13 | 64 |
| C16 | 80 |
| C20 | 100 |

